

What is claimed is:

1. A cross-weave load restraining strip for use in securing cargo within a transport container, which cargo is subject to shifting forces during transport, said load restraint strip comprising:

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a first, cross-weave layer of reinforcement material having a first side and a second side and being composed of,

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substantially parallel longitudinal strands extending along the length of said restraining strip, and

crossing strands interwoven with said substantially parallel longitudinal strands to produce said cross-weave layer of reinforcement material;

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a first adhesive layer having a first side and a second side and coextensively extending along , coating and bonding to a second side of said cross-weave material;

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a second, parallel strand layer of reinforcement material having a first side and a second side, wherein said second surface of said first adhesive layer is bonded to said first surface of said second, parallel strand layer of reinforcement material;

a second layer of adhesive having a first side and a second side and partially extending along and coating a portion of said second side of said second layer of reinforcement strands; and

5 a release paper extending coextensively with and releasably adhered to the second surface of said second layer of adhesive, wherein said release paper may be removed from said second layer of adhesive on site and said load restraining strip releasably affixed to an interior surface of a cargo transport container such that said load restraining strip may be used as a
10 flexible securement element to secure cargo within a transport container.

2. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 1 wherein said first, cross-weave layer of reinforcement is formed such that:

15 spacing between next adjacent crossing strands of said cross-weave layer of reinforcement material is approximately twice as great as the spacing between next adjacent strands of said substantially parallel longitudinal strands.

20 3. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 1 wherein said first, cross-weave layer of reinforcement further comprises:

a pliant coating applied to said first and outer surface of said cross-weave material.

- 5 **4. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 3 wherein said pliant coating comprises:**

a layer of Mylar.

- 10 **5. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 1 wherein said first adhesive layer includes:**

15 **a spun bonded polyester substrate located generally centrally within said first adhesive layer.**

- 6. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 1 wherein:**

20 **said substantially parallel longitudinal strands of said cross-weave layer comprises a plurality of finer denier fibers of reinforcement material.**

- 7. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6 wherein:**

each of said strands of second, parallel strand layer of reinforcement material comprises a plurality of finer denier fibers of reinforcing material.

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8. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6, wherein said finer denier fibers are composed of :

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polyester.

9. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6, wherein said finer denier fibers are composed of :

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polypropylene.

10. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6, wherein said finer denier fibers are composed of :

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polyethylene.

11. A cross-weave load restraining strip for use in securing cargo within a

transport container as defined in claim 6, wherein said finer denier fibers are composed of :

polyolefin.

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12. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6, wherein said finer denier fibers are composed of :

10 **glass fiber.**

13. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6, wherein said finer denier fibers are composed of :

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an aramid.

14. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6, wherein said finer denier fibers are composed of :

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carbon fibers.

15. A cross-weave load restraining strip for use in securing cargo within a

transport container as defined in claim 6, wherein said finer denier fibers are composed of :

Kevlar fibers.

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16. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 6, wherein said finer denier fibers are composed of :

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a combination of at least two different fibers selected from the group consisting of a polyester, polypropylene, polyethylene, polyolefin, glass fiber, aramid, carbon fiber and Kevlar.

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17. A laminated load restraining strip for use in securing cargo within a transport container as defined in claim 1, wherein said second layer of adhesive includes:

a substrate material having a first side and a second side;

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a first course of adhesive covering said first side of said substrate material and adhered to said second side of said second, parallel strand layer of reinforcement material; and

a second course of adhesive covering said second side of said substrate

material and being operable for adhering contact with an interior surface of a cargo transport container.

18. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 17, wherein said substrate comprises:

a strip of Mylar material.

19. A cross-weave load restraining strip for use in securing cargo within a transport container as defined in claim 17, wherein:

said first course of adhesive of said second layer of adhesive is thicker than said second course of adhesive of said third layer of adhesive.

20. A method for securing cargo within a transport container, which cargo is subject to shifting forces, using a cross-weave load restraint system, said method comprising the steps of:

removing a first and a second cross-weave load restraining strip of material, having substantially equal lengths, from a reel of said cross-weave load restraining strip material wherein each of said cross-weave strips includes a first, cross-weave layer of reinforcement material, a layer of adhesive coating a second side of said cross-weave strip, a second, parallel strand layer of reinforcement material bound to a second surface

of said first layer of adhesive and a second layer of adhesive bound to an outer surface of said second layer of reinforcing material, said first and second laminated load restraining strips being operable for attachment at one end to an interior surface of a transport container and the other end to extend at least partially across an unconfined end of a load to be restrained;

peeling a release layer from a second surface of said second adhesive layer;

applying said first and second cross-weave load restraining strips to opposing interior surfaces of the transport container so that said first and second cross-weave load restraining strips extend across the transport container enough to be overlapped;

pressing the adhesive of said first and second cross-weave load restraining strips against the opposing interior surfaces of the transport container;

loading cargo into the transport container;

overlapping the ends of said first and second cross-weave load restraining strips that extend within the transport container;

drawing said first and second cross-weave load restraining strips taut

around the rear of the cargo at the overlapped location; and

securing said first cross-weave load restraining strip to said second cross-weave load restraining strip at the overlapped portion wherein the shear strength of said first and second adhesive layers operably transfer axial loads between said first and second cross-weave load restraining strips to the interior surfaces of said transport container through said second adhesive layer, thereby forming a secure cross-weave load restraining system.

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21. A method for securing cargo within a transport container, which cargo is subject to shifting forces, using a cross-weave load restraint system as defined in claim 19, said method further comprising the steps of:

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protecting and solidifying strands of said cross-weave material with an outer coating of material.

22. A method for securing cargo within a transport container, which cargo is subject to shifting forces, using a cross-weave load restraint system as defined in claim 20, said method further comprising the step of:

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forming the inner course of second adhesive layer adjacent to said second layer of reinforcement strands with a thickness greater than the thickness of the adhesive course on the outer surface of the substrate.